



**Environmental
Protection Agency**

Division of Surface Water

Application for Authorization Class B Biosolids Beneficial Use Sites

Division of Surface Water
Application for Authorization
Class B Beneficial Use Sites

Form BUA-1

Biosolids Treatment Works Information

Treatment works name: Ringler Energy, LLC		
Ohio NPDES permit #: 4IN00204*AD		County: Morrow
Mailing address: 2881 County Road 156		
City: Cardington	State: OH	Zip: 4315
Operator of record: Bruce Bailey, Vice President of Technical Affairs		
Telephone number: 216-986-9999		
Email address (if available): bbailey@quasareg.com		

Certification Statement

1. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.
2. I have read and understand Chapter 3745-40 of the Ohio Administrative Code (OAC) and I agree to beneficially use biosolids in accordance with all applicable beneficial use requirements and restrictions established in Chapter 3745-40 of the Ohio Administrative Code.
3. I agree to only beneficially use biosolids that have satisfied a pathogen reduction alternative and a vector attraction reduction option and have metals concentration below the pollutant ceiling concentrations as established in Chapter 3745-40 of the Ohio Administrative Code.
4. I agree to maintain all applicable records established in Chapter 3745-40 of the Ohio Administrative Code.



Signature

____/____/____
Date

Owner Consent for Beneficial Use

Exemption 6

Certification Statement

1. I agree to allow biosolids generated by the treatment plant identified on Form BUA-1 to be beneficially used on my property at agronomic rates.
2. I agree to allow federal, state and local regulatory staff access to the beneficial use site for the purposes of inspecting and authorizing the beneficial use site, beneficially using biosolids, and collecting and analyzing samples from the beneficial use site. I reserve the right to ask the above parties for proper identification at any time.
3. I certify that I am holder of legal title to the property described on application form BUA-5, or am authorized by the holder to give consent for the land application of biosolids, and that there are no restrictions to the granting of consent under this form.

Exemption 6

Signature

7 / 22 / 05
Date

For purposes of this form, "beneficial use site owner" means the person who owns the legal rights to the proposed beneficial use site. In the event the owner of the beneficial use site changes, Form BUA-2 must be revised and resubmitted to Ohio EPA.



Form BUA-3

Beneficial Use Site Operator Consent for Beneficial Use

Exemption 6

Certification Statement

I agree to be responsible for complying with all applicable beneficial use requirements established in Chapter 3745-40 of the Ohio Administrative Code.

Exemption 6

Signature

9, 28, 2016
Date

In the event the operator of the beneficial use site changes, Form BUA-3 must be revised and resubmitted to Ohio EPA.

Beneficial User Information

Beneficial user: <u>Ringler Energy, LLC</u>		
Contact person: <u>Bruce Bailey, VP of technical affairs</u>		
Mailing address: <u>2881 Co. Rd. 156</u>		
City: <u>Cardington</u>	State: <u>OH</u>	Zip: <u>43315</u>
Telephone number: <u>(216) 986-9999</u>		

quasar energy group
7624 Riverview Road
Cleveland, OH 44141

(216) 986-9999
www.quasarenergygroup.com





Beneficial Use Site Information

Ohio EPA Site I.D. (Ohio EPA Use Only)

Field site I.D.: DEQ-02-04			
Beneficial use site location: NW Corner of Shoemaker Rd. and US-42			
County: Delaware		Township: Oxford	
Latitude: 40°23'17.30"N		Longitude: 40°23'17.30"W	
Total acreage proposed for beneficial use: 79.0			
Type of beneficial use to be performed:		Ground slope percent:	
Surface application <input type="checkbox"/>		Less than 15% <input checked="" type="checkbox"/> 15% to 19.9% <input type="checkbox"/>	
Injection or immediate incorporation <input checked="" type="checkbox"/>		Greater than 20% <input type="checkbox"/>	
Soil pH (s.u): 6.5		Soil phosphorus (mg/kg): 17.5	
Bedrock depth (feet): >3ft		Bray Kurtz P1 <input type="checkbox"/> Mehlich 3 <input checked="" type="checkbox"/>	
Type of crops to be grown:			
		Crop Type	Expected Yield
		Corn	180 bu/ac
		Soybeans	60 bu/ac
		Wheat	
		Pasture	
		Hay	
		Other:	
Soil Types:			
Soil Unit Symbol	Soil Unit Name	Hydrologic Soil Group	Flooding Frequency Class
Blg1A1	Blount silt loam, ground moraine, 0-2% slopes	D	None
Blg1B1	Blount silt loam, ground moraine, 2-4% slopes	D	None
PwA	Pewamo silty clay loam, 0-1% slopes	C/D	None

Division of Surface Water
Application for Authorization: Class B Beneficial Use Sites

Applicable isolation distances:

Type of Isolation Distance			
Surface waters of the state	<input checked="" type="checkbox"/>	Sinkhole/UIC class V drainage	<input type="checkbox"/>
Occupied building	<input checked="" type="checkbox"/>	Private potable water source	<input type="checkbox"/>
Medical care facility	<input type="checkbox"/>		

Are any endangered species or endangered species habitats located on the beneficial use site?

☐ Yes ☒ No

If "Yes" is marked, list the types of endangered species or endangered species habitat:

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Have biosolids been beneficially used on the site since July 20, 1993?

☐ Yes ☒ No

If "Yes" is marked, list the biosolids generators and years beneficial use occurred:

Generator	NPDES permit No.	Year of Beneficial Use

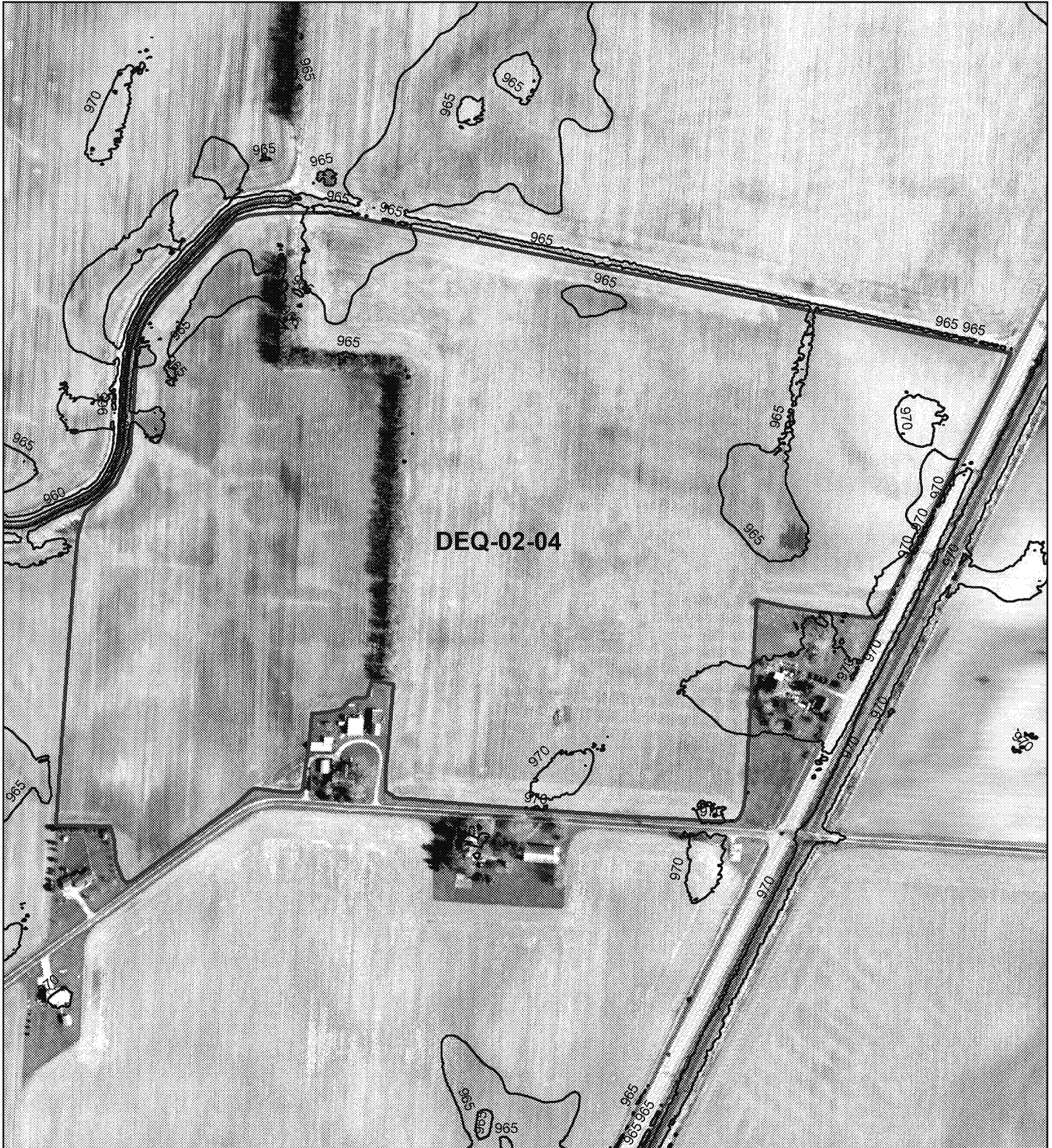
The application must also include all of the following:

- ☒ A soil map of the proposed beneficial use site.
- ☒ A frequency flood class map of the proposed beneficial use site.
- ☒ An aerial map of the proposed beneficial use site that clearly identifies the entrance of the beneficial use site from the nearest road and all applicable isolation distances as established in Chapter 3745-40 of the Ohio Administrative Code.
- ☒ A vicinity road map at or near the township level that clearly identifies the proposed beneficial use site with all roads labeled.
- ☒ A copy of the most recent soil test results identified in this form.



0 300 600 1,200 Feet

- Waterways
- Residences
- 33ft Water Buffer
- 100ft Res Buffer
- 300ft Res Buffer



0 300 600 1,200 Feet

—— 5ft Contours


Custom Soil Resource Report Soil Map



Custom Soil Resource Report


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)


Soils


 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features


 Blowout


 Borrow Pit


 Clay Spot


 Closed Depression


 Gravel Pit


 Gravelly Spot

 Landfill


 Lava Flow

 Marsh or swamp


 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop

 Saline Spot


 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other


 Special Line Features


Water Features


 Streams and Canals


Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Delaware County, Ohio
Survey Area Data: Version 13, Sep 18, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 27, 2012—Mar 10, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Delaware County, Ohio (OH041)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	8.4	10.6%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	4.0	5.1%
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	66.9	84.4%
Totals for Area of Interest		79.2	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.


The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments

Custom Soil Resource Report
Map—Depth to Any Soil Restrictive Layer (DEQ-02-04)










MAP LEGEND

Area of Interest (AOI)








 Area of Interest (AOI)

Soils







Soil Rating Polygons


-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available

Soil Rating Lines

-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available

Soil Rating Points

-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200

 Not rated or not available

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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Please rely on the bar scale on each map sheet for map measurements.

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Table—Depth to Any Soil Restrictive Layer (DEQ-02-04)

Depth to Any Soil Restrictive Layer— Summary by Map Unit — Delaware County, Ohio (OH041)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	99	8.4	10.6%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	94	4.0	5.1%
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	>200	66.9	84.4%
Totals for Area of Interest			79.2	100.0%

Rating Options—Depth to Any Soil Restrictive Layer (DEQ-02-04)

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Hydrologic Soil Group (DEQ-02-04)

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.


Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Custom Soil Resource Report
Map—Hydrologic Soil Group (DEQ-02-04)











MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils





Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
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Table—Hydrologic Soil Group (DEQ-02-04)

Hydrologic Soil Group— Summary by Map Unit — Delaware County, Ohio (OH041)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	D	8.4	10.6%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	D	4.0	5.1%
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	C/D	66.9	84.4%
Totals for Area of Interest			79.2	100.0%

Rating Options—Hydrologic Soil Group (DEQ-02-04)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

BROOKSIDE LABORATORIES, INC.

SOIL AUDIT AND INVENTORY REPORT

Name Ringler Feedlots/Livestock City Marengo State OHIndependent Consultant Brookside Consultants of Ohio, Inc. Date 07/09/2015

Sample Location <u>ASHLEY</u>		Exemption 6			
Sample Identification		70A-1	70A-2	70A-3	70A-4
Lab Number		0638-1	0639-1	0640-1	0641-1
Total Exchange Capacity (ME/100 g)		19.87	19.41	21.68	17.30
pH (H ₂ O 1:1)		6.7	6.3	6.2	6.9
Organic Matter (humus) %		2.47	3.09	2.66	2.09
Estimated Nitrogen Release lb/A		69	81	73	62
ANIONS	SOLUBLE SULFUR* ppm	8	6	6	5
	MEHLICH III lb/A P as P ₂ O ₅	101	165	37	18
	ppm of P	22	36	8	4
	BRAY II lb/A P as P ₂ O ₅	206	325	101	73
	ppm of P	45	71	22	16
EXCHANGEABLE CATIONS	OLSEN lb/A P as P ₂ O ₅				
	ppm of P				
	CALCIUM* lb/A	5474	5142	5768	4926
	ppm	2737	2571	2884	2463
	MAGNESIUM* lb/A	976	768	780	884
	ppm	488	384	390	442
	POTASSIUM* lb/A	160	190	160	132
	ppm	80	95	80	66
	SODIUM* lb/A	40	38	36	42
	ppm	20	19	18	21
BASE SATURATION PERCENT					
Calcium %		68.87	66.23	66.51	71.18
Magnesium %		20.47	16.49	14.99	21.29
Potassium %		1.03	1.25	0.95	0.98
Sodium %		0.44	0.43	0.36	0.53
Other Bases %		4.70	5.10	5.20	4.50
Hydrogen %		4.50	10.50	12.00	1.50
EXTRACTABLE MINORS					
Boron* (ppm)		0.72	0.80	0.77	0.72
Iron* (ppm)		197	230	190	126
Manganese* (ppm)		33	33	12	57
Copper* (ppm)		3.49	3.63	4.53	2.91
Zinc* (ppm)		2.70	1.66	1.58	1.10
Aluminum* (ppm)		778	661	745	655
OTHER TESTS	Soluble Salts (mmhos/cm)				
	Chlorides (ppm)				

* Mehlich III Extractable